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Samuels, Gauthier & Stevens LLP			STERRETT, JONATHAN G	
225 Franklin Street, Suite 3300 Boston, MA 02110			ART UNIT	PAPER NUMBER
			3623	
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)				
	09/828,596	HOMSI, ALEXANDRE EL				
Office Action Summary	Examiner	Art Unit				
	Jonathan G. Sterrett	3623				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPL' THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a repl If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be time y within the statutory minimum of thirty (30) days will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE.	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status						
2a) ☐ This action is FINAL . 2b) ☑ This 3) ☐ Since this application is in condition for allowa	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims						
 4) Claim(s) 1-30 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration. 5) Claim(s) is/are allowed. 6) Claim(s) 1-30 is/are rejected. 7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement. 						
Application Papers						
 9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. 						
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:					

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DETAILED ACTION

Summary

1. Claims 1-30 are pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 26 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Chatterjee US 5,774,661.

Regarding Claim 26, Chatterjee discloses:

a workflow design area to design a workflow process, said workflow process comprising one or more workflow process segments,

Figure 3 #313, #314, #315 are workflow process segments in a workflow design area. This view shows how a workflow process may be built using workflow segments.

said segments comprising at least one remote workflow process segment for exchanging data with one or more remote sources in a network, and

Figure 3 #318, in this example a database retrieval step is listed. Figure 2 illustrates the network where the desktop GUI, #213 can interact through an API layer, #250, through the network #150 to a database server, #222.

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a properties panel to manipulate one or more properties associated with said one or more workflow process segments.

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Figure 3 #351-#370 illustrate a properties panel to manipulate several properties associated with the workflow segments illustrated, in this case for "purchase order entry".

Claim 29 is rejected under the same rationale as Claim 26 above, therefore the same rejection applies.

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 5. Claims 1, 4, 7, 9, 13, 15-17, 20, 21, 24, 25 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee US 5,774,661 in view of Aspen
 Technology (Aspen) "Aspen Engineering Suite" software product as referenced in the following document:

Business Wire, "Aspen Technology Introduces Aspen Engineering Suite", May 1998, pp.1-4.

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Regarding Claim 1, Chatterjee teaches:

a workflow segment designer creating one or more workflow steps defining a set of routing rules for one or more resources that trigger said workflow steps;

Column 3 line 60-63, workflow builder defines the steps, rules and operations of a workflow.

Column 5 line 51-52, workflow menu is used to set up, define new workflows including workflow steps.

Column 6 line 58 & line 61-62, distribution points, as defined by the flow control menu in the designer, allows multiple resources to work on an item in parallel. These items are triggered to the resource when the user activates the workflow step through the use of workbaskets.

Column 14 line 63-65, rule engine automates workflow routing in accordance with conditional relationships, including resources triggering workflow steps.

a sub-flow designer creating one or more sub-flow processes, said sub-flow processes incorporating one or more of pre-existing internal workflow processes;

Column 3 line 60-63, workflow builder defines the steps of a workflow, including those steps which incorporate one or more pre-existing internal workflow processes.

Column 5 line 58-60, the command 'open' is used to control access to existing workflows, including to incorporate those into the creation of sub-flow processes.

Column 7 line 8-13, button 358 in Figure 3 allows the insertion of a sub-workflow or existing complex operation into a current workflow process.

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Column 7 line 17-20, commonly used, previously defined workflows can be used in the definition of new workflow processes.

a condition designer creating one or more workflow conditions based on one or more formulas, said conditions specified in one of the following ways: success, failure, a percentage of a success or a percentage of a failure;

Column 8 line 45-49, rule engine creates one or more workflow conditions based on conditional clauses or formulas, including conditions which can be specified by success or failure.

Column 8 line 66 – column 9 line 1, for a particular condition clauses are all evaluated to determine if there are no more clauses, then the rule condition is evaluated as 'success' and the rule engine presents the routing information.

an external process designer creating one or more external process workflow objects, said objects exchanging data with one or more remote sources in said network;

Figure 2 #214 and #213, workflow builder and desktop creates an external process workflow object(s), as shown in Figure 2 #223 'object repository'. Objects exchange data with one or more remote sources in network – column 3 line 62-65, in this example, a customer PO that is scanned is an object that then has an OCR performed on it – these objects may be remote in a network as shown by Figure 2 which

illustrates the separation of the workflow design and administration steps with the rule engine #230 and object repository #223.

said system creating workflow processes using said workflow segment designer, subflow designer, condition designer and external process designer

Column 2 line 19-30, system for generating and controlling workflows.

Figure 3 illustrates the system for creating workflow processes including workflow segment designer, subflow designer, and external process designer. Steps 313, 314, 315 and 316 are all workflow steps. 318 is a connection to an external process, in this case a database. The command 390 'workflow' allows the opening of subflows which are existing workflow processes (column 5 line 58-60).

Figure 4 illustrates the 'rules condition builder' for designing workflow conditions.

and said system routing said one or more resources locally and remotelyusing said set of routing rules and said intelligent search engine,

column 2 line 27-30, workflows include steps or routing objects retrieved from repository (see figure 2 #223 object repository can be local and remote through network #150).

Column 5 line 19-26, rule engine evaluates request (Figure 2 #230 and routes the request to a resource if request is valid according to rules in rules engine).

Chatteriee does not teach:

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a workflow analyzer analyzing in real-time said one or more workflow processes;

and said system analyzing, via said workflow analyzer, said created workflow process in real time to optimize workflow functionality.

Aspen teaches:

a workflow analyzer analyzing in real-time said one or more workflow processes;

Page 2 paragraph 1 line 1-4, Aspen Engineering Suite allows company's to improve their business processes and workflows.

Page 2 paragraph 3 line 19-21, Aspen provides real time analysis and real time optimization of plant operations. Since real time optimization requires an objective function for determining a maxima or minima in real time, the calculations required by an analyzer to achieve real time optimization constitute real time analysis of the system at various points in order to converge to a real time optimization point.

and said system analyzing, via said workflow analyzer, said created workflow process in real time to optimize workflow functionality.

Page 1 paragraph 4 line 5-9, Aspen provides analysis and real time optimization of plant operations. Real time optimization requires the real time analysis of an objective function to determine where the function is in real time in respect to a maxima or a minima. A real time optimization provides a faster way to converge an objective function to an optimized point (maxima or minima).

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Aspen teaches that the use of its software to provide real time analysis and optimization of business processes improves productivity and profitability through the automation of tasks (page 1 paragraph 2 line 11-15).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Chatterjee regarding workflow management systems to include a system providing real time analysis and optimization to optimize workflow functionality, as taught by Aspen, because optimizing in real time ensures there is no delay in achieving an optimized process state.

Regarding Claim 4, Chatterjee teaches

wherein said system further comprises a requestor filter to restrict said routing based on identities of requestors triggering said workflow steps.

Column 8 line 20-25, rule engine restricts resource routing based on a wide variety of conditions, including those based on identities of requestors.

Column 8 line 10-14, for example, a workbasket presents a rejected PO to specific users through the use of the rule engine that restricts routing based on identities of requestors triggering workflow steps.

Regarding Claim 7, Chatterjee teaches:

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wherein said formulas are interpreted using said intelligent search engine to determine appropriate workflow recipients for said one or more resources.

Column 2 line 27-30, workflows include steps or routing objects retrieved from repository (see figure 2 #223 object repository can be local and remote through network #150).

Column 5 line 19-26, rule engine evaluates request (Figure 2 #230 and routes the request to a resource if request is valid according to rules in rules engine).

Regarding Claim 9, Chatterjee teaches:

wherein said system further comprises a workflow administration manager setting the frequency and priority of said created workflow processes.

Column 4 line 13-16, priority is set for a particular user when the script handler prompts a user for input when intermediate results are obtained.

Figure 3 #313 and 314, priority is set for workflow processes in the ordering of various steps, e.g. when step #313 occurs before step #314.

Column 3 line 52-54, administration manager sets up workbaskets, which are used by users of a workflow management system to control which task they work on (priority) and when (frequency).

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Regarding Claim 13, Chatterjee teaches:

wherein said network comprises any of the following:

local area network (LAN), wide area network (WAN), HTTP network, world wide web, wireless network, PSTN/PBX network, or **Internet**.

Figure 2 #240 shows elements of workflow management system which communicate over a network, #150, using TCP/IP protocol, #240.

Regarding Claim 15, Chatterjee teaches:

wherein said one or more resources to be routed are further updated by accessing a script library.

Column 3 line 45-50, system includes a script handler with a rule library – see figure 2 #211—for updating resources. The script handler translates commands that are used by the system to access remote resources, including updating their status, whether they are busy-or idle.

Column 4 line 51-53, script handler performs routing in complex operations, including resource routing and updating of resource status.

Regarding Claim 16, Chatterjee teaches:

wherein said script library is an application programming interface (API) library.

Figure 2 #250, Workforce Database (WFDB) API layer is shown which interacts with the script handler and rule engine library, #211. This construct allows for the workflow management system to access remote resources over the network #150...

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Claims 17, 20, 21, 24, 25 and 28 are rejected under the same rationale as Claims 1, 4, 7, 9, 13, 15 and 16 above, therefore the same rejection applies.

6. Claims 2, 3, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee US 5,774,661 in view of Aspen and further in view of Koulopolous.

Koulopolous, Thomas; Palmer, Nathaniel, "High End Workflow", June 1994, PC Magazine, v13n11, pp.1-9.

Regarding Claim 2, Chatterjee and Aspen do not teach:

A deadline handler that provides for control of workflow processing times through deadlines.

Koulopolous teaches:

A deadline handler that provides for control of workflow processing times through deadlines.

Page 5 paragraph 1 line 8-10, Queues can be set in workflow management software Powerflow so that software functions can be triggered to control workflow processing times through the expiration of a time limit or deadline.

The examiner takes Official Notice that the concept of deadlines is old and well known in the art of management. This concept is important in management because it

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provides for a way to ensure that certain tasks that are necessary for the success of a business are accomplished in a time-sensitive manner.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen, to include a deadline handler for controlling workflow processing times through deadlines, because it would provide a way to ensure that tasks necessary for the success of a business are accomplished in a time sensitive manner.

Regarding Claim 3, Chatterjee and Aspen do not teach:

wherein said deadlines is defined in one of the following ways: based on a value extracted from a form or based on a predefined deadline

Koulopolous teaches:

wherein said deadlines is defined in one of the following ways: based on a value extracted from a form or based on a predefined deadline.

Page 5 paragraph 1 line 8-10, Queues can be set in workflow management software Powerflow so that software functions can be triggered to control workflow processing times through the expiration of a time limit or deadline. This triggering can be determined according to preset or predefined conditions including a predefined deadline.

The examiner takes Official Notice that the concept of deadlines is old and well known in the art of management. This concept is important in management because it provides for a way to ensure that certain tasks that are necessary for the success of a business are accomplished in a time-sensitive manner. Deadlines by their nature are predefined. For example, an employee given a deadline is given advance notice so that they will know when the deadline occurs. At the time of the deadline, the notice to the employee makes the deadline predetermined.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen, to include where a deadline is predefined, because it would provide a way to ensure that tasks necessary for the success of a business are accomplished in a time sensitive manner by giving advance notice to accomplish a task by the time the deadline occurs.

Claims 18 and 19 are rejected under the same rationale as Claims 2 and 3 above, therefore the same rejection applies.

7. Claims 5, 6, 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee US 5,774,661 in view of Aspen and further in view of Du US 5,826,239.

Regarding Claim 5, Chatterjee and Aspen do not teach:

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wherein said intelligent search engine in a rules-based engine.

Du teaches:

wherein said intelligent search engine in a rules-based engine.

Column 10 line 42-43, a policy is a set of rules which determines how resources are related to tasks within a WFPM system – one common use is for task assignment

Column 12 line 11-16, HP OpenPM engine searches for local and remote resources – in this example it's done in the context of configuring a SONET.

Du teaches that automating the searching of resources reduces mistakes over what a manual operator would perform (column 12 line 9-10).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen, as discussed above, with wherein the intelligent search engine is a rules-based engine, as taught by Du, because it would reduce mistakes by automating the searching of local and remote resources.

Regarding Claim 6, Chatterjee and Aspen do not teach:

wherein said rules associated with said rules engine are stored in a rules database.

Du teaches:

wherein said rules associated with said rules engine are stored in a rules database.

Figure 5 #95a-c, Resource Data and Rules database stores rules associated with the rules engine.

Du teaches that automating the searching of resources in a workflow management system reduces mistakes over what a manual operator would perform (column 12 line 9-10). This automated searching requires the use of rules.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and, as discussed above, with wherein the rules are stored in a database, because it would reduce mistakes by automating the searching of local and remote resources.

Regarding Claim 8, Chatterjee and Aspen do not teach:

wherein said created workflow processes are stored in a central database for future access by other workflow processes.

Du teaches:

wherein said created workflow processes are stored in a central database for future access by other workflow processes.

Column 10 line 31-36, business object library stores objects that can be assembled to form workflow processes.

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Figure 5 #94a-c, business objects stored in databases.

Official Notice is taken that it old and well known in the art to store software code, including objects, in repositories for later reuse. This is done to stimulate reuse and save time and cost in programming since the software code can be reused.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen, as discussed above, with saving the workflow process in a database, as taught by Du, because it would save time and costs associated with creating new workflow processes.

Regarding Claim 14, Chatterjee and Aspen do not teach:

wherein said remote source accessed by said external process workflow objects is a remote database.

Du teaches:

wherein said remote source accessed by said external process workflow objects is a remote database.

Column 20 line 40-42, remote objects accessed by OpenPM engine

Column 21 line 13-15, associated remote resource database for tracking resources.

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Du teaches that managing resources in a distributed manner in a WFMS reduces the cost associated with resource management that is managed at a central site (column 2 line 42-46)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Chatterjee and Aspen, as discussed above, with accessing a remote database for tracking resources, as taught by Du, because it would provide efficient tracking of resources across an enterprise and reduce costs.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Chatterjee US 5,774,661 in view of Aspen and further in view of Notani US 6,397,191.

Regarding Claim 10, Chatterjee and Aspen do not teach:

wherein said workflow administration manager is implemented using a Java servlet.

Notani teaches:

wherein said workflow administration manager is implemented using a Java servlet.

Column 6 line 23-30, the global collaboration workspace stores objects in Java format.

Column 7 line 19-21, data and objects for workflow management can be encoded in Java, including for administration management.

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Notani teaches that the use of objects in a workflow management system provides enhanced capabilities because the objects can carry both data and behavior (column 2 line 52-56).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen to include implementing a workflow administration manager using a Java servlet, because the use of objects in workflow management provides enhanced capabilities.

9. Claims 11, 12, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee US 5,774,661 in view of Aspen and further in view of Sanders US 6,574,605.

Regarding Claim 11, Chatterjee and Aspen do not teach:

wherein said workflow analyzer further comprises a statistical analyzer analyzing workflow history of said workflow processes.

Sanders teaches:

wherein said workflow analyzer further comprises a statistical analyzer analyzing workflow history of said workflow processes.

Column 10 line 19-21, enterprise workload monitor is responsible for collecting, analyzing work performance information from all service channels.

Column 6 line 50-52, statistical data is accumulated of an extended time period or history. The analysis of historical data in this example is used to calculate full time equivalents (FTE's).

Sanders teaches that applying automated management tools maximizes central management control and minimizes the cost of operations (column 2 line 25-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen to further include analyzing workflow history of workflow processes, as taught by Sanders, because it would maximize central control in a workflow management system and minimize the cost of operations.

Regarding Claim 12, Chatterjee and Aspen do not teach:

an average processing time estimator calculating an average processing time of each of said one or more created workflow processes:

a daily load estimator calculating a daily load associated with each user in said system, and

a global load estimator calculating the overall load associated with each user in said system.

Sanders teaches:

an average processing time estimator calculating an average processing time of each of said one or more created workflow processes;

column 12 line 55-61, call time for the handling of individual calls is estimated as the average processing time by the enterprise workload manager.

a daily load estimator calculating a daily load associated with each user in said system, and

Column 22 line 29-31, predictive scheduler (see Figure 6 also) provides workforce planning for daily load associated with each user in the system.

Column 22 line 49-51, staff scheduler component of predictive scheduler provides staff scheduling for each person.

a global load estimator calculating the overall load associated with each user in said system.

Column 22 line 44-49, the forecaster element of the predictive scheduler (see Figure 6 #1240) calculates an overall load for each staff that is handling workflow.

Sanders teaches that applying automated management tools maximizes central management control and minimizes the cost of operations (column 2 line 25-29).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen to further include calculating an average processing time, a daily load and an overall load associated with

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each user in the system, as taught by Sanders, because it would maximize central control in a workflow management system and minimize the cost of operations.

Claims 22 and 23 are rejected under the same rationale as Claims 11 and 12 above, therefore the same rejection applies.

10. Claims 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee US 5,774,661 in view of Du US 5,826,239.

Regarding Claim 27, Chatterjee teaches:

A workflow design area as discussed above in Claim 26 (Figure 3).

Chatterjee does not teach:

a workflow object store comprising predefined workflow processes usable either as a new workflow process or as part of an existing workflow process

Du teaches:

a workflow object store comprising predefined workflow processes usable either as a new workflow process or as part of an existing workflow process.

Column 10 line 31-36, business object library stores objects that can be assembled to form workflow processes. Business objects form the building blocks assembled to form workflow processes.

Figure 5 #94a-c, business objects stored in databases.

Official Notice is taken that it old and well known in the art to store software code, including objects, in repositories for later reuse. This is done to stimulate reuse and save time and cost in programming since the software code can be reused.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the collective teachings of Chatterjee and Aspen, as discussed above, with saving the workflow process in a database, as taught by Du, because it would save time and costs associated with creating new workflow processes.

Claim 30 is rejected under the same rationale as Claim 27 above, therefore the same rejection applies.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5862203 by Wulkan discloses a call center management system with provisions for performing real time optimization of call handling.

US 5999911 by Berg discloses a method and system for managing workflow including tools for graphical design of workflow processes.

US 5721913 by Ackroff discloses an integrated activity management system with a database and rules for managing the activities of a system.

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US 5485995 by Krist discloses a system for real time optimization of economic input variables in managing a process.

"Business Process and Workflow: where technology and management come together", February 1996, Computer Conference Analysis Newsletter, n380, p1.

"Workflow: Control is Key", Sept 1992, RELease 1.0, v92, n9, p10.

"Features to Evaluate When Shopping for Workflow Software", Jan 1996, Financial Services Report, v13, n2, pp.1-3.

"Tips for Selecting a Workflow Tool", Jan 1996, Data Channels, v23, n1, pp.1-5.

"Section 8: Computer Management Systems", July 1998, Printing Impressions, v41, n2, p.332.

Dilger, Karen Abramic, "Everyone wants in", July 1998, Manufacturing Systems, v16n7, pp.108-142.

Business Wire, "Aspen Technology Releases Aspen Plus 10.0", April 1998, p4201233.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-272-6881. The examiner can normally be reached on 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on 571-272-6729.

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13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGS 4-20-05

TARIO R. HAFIZ SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3600